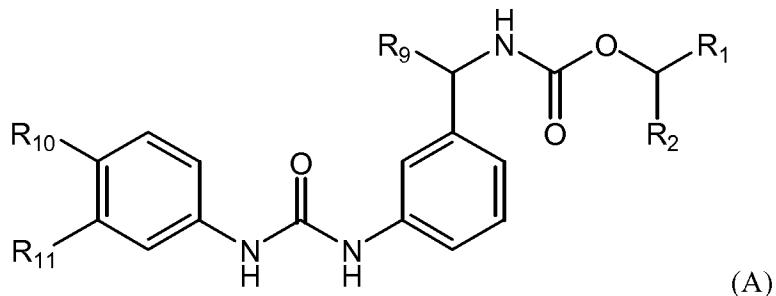


CLAIMS

Please replace all prior versions and listings of claims with the amended claims as follows:

1. (currently amended) A composition comprising:

- (a) ~~an apoptosis inducing anti-cancer agent fludarabine~~;
- (b) a compound of formula (A):



wherein:

~~each of R₁ and R₂ is independently selected from hydrogen; CF₃; (C₁-C₆)-straight or branched alkyl; (C₂-C₆)-straight or branched alkenyl or alkynyl; (C₄-C₆)-straight or branched alkyl R₇; [(C₂-C₆)-straight or branched alkenyl or alkynyl]-R₇ or R₇; and wherein at least one of R₁ or R₂ is (C₁-C₆)-straight or branched alkyl R₇; [(C₂-C₆)-straight or branched alkenyl or alkynyl]-R₇ or R₇~~

one of R₁ or R₂ is selected from hydrogen, ethyl or phenyl; and the other of R₁ or R₂ is selected from -CH₂OH, -CH₂CN, -CH₂CH₂CN or CH₂N(CH₂CH₃)₂, or wherein R₁ and R₂ are taken together to form a 3-tetrahydrofuryl moiety.

wherein up to 4 hydrogen atoms in any of said alkyl, alkenyl or alkynyl are optionally and independently replaced by R₃; and

wherein one or both of R₁ or R₂ are optionally esterified to form a prodrug; or

wherein R₁ and R₂ are alternatively taken together to form tetrahydrofuryl, wherein when R₉ is hydrogen, (R)-methyl, (R)-ethyl or (R)-hydroxymethyl, one hydrogen atom in said tetrahydrofuran is replaced by OR₆ or R₇; and wherein when R₉ is (S)-methyl, (S)-ethyl or (S)-hydroxymethyl, one hydrogen atom in

said tetrahydrofuran is optionally replaced by OR_6 or R_7 ;

wherein when R_9 is hydrogen, (R) methyl, (R) ethyl or (R) hydroxymethyl and each of R_1 and R_2 are independently hydrogen, unsubstituted ($\text{C}_1\text{--C}_6$) straight or branched alkyl, or unsubstituted ($\text{C}_2\text{--C}_6$) straight or branched alkenyl or alkynyl, then the portion of the compound represented by $\text{CH}(\text{R}_1)\text{R}_2$ is a $\text{C}_5\text{--C}_{12}$ straight or branched alkyl, alkenyl or alkynyl;

each R_3 is independently selected from halo, CN, OR_4 , or $\text{N}(\text{R}_5)_2$;

R_4 is selected from hydrogen, ($\text{C}_1\text{--C}_6$) straight or branched alkyl, ($\text{C}_2\text{--C}_6$) straight or branched alkenyl or alkynyl, $[(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}] \text{R}_7$, $[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}] \text{R}_7$, $\text{C}(\text{O})[(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}]$, $\text{C}(\text{O})[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}]$, $\text{C}(\text{O})[(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}] \text{N}(\text{R}_8)_2$, $\text{C}(\text{O})[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}] \text{N}(\text{R}_8)_2$, $\text{P}(\text{O})(\text{OR}_8)_2$, $\text{P}(\text{O})(\text{OR}_8)(\text{R}_8)$, $\text{C}(\text{O})\text{R}_7$, $\text{S}(\text{O})_2\text{N}(\text{R}_5)_2$, $[(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}] \text{CN}$, or $[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}] \text{CN}$;

each R_5 is independently selected from hydrogen, ($\text{C}_1\text{--C}_6$) straight or branched alkyl, ($\text{C}_2\text{--C}_6$) straight or branched alkenyl or alkynyl, $[(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}] \text{R}_7$, $[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}] \text{R}_7$, $[(\text{C}_1\text{--C}_6) \text{ straight alkyl}] \text{CN}$, $[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}] \text{CN}$, $[(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}] \text{OR}_4$, $[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}] \text{OR}_4$, $\text{C}(\text{O})(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}$, $\text{C}(\text{O})[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}]$, $\text{C}(\text{O})\text{R}_7$, $\text{C}(\text{O})\text{O R}_7$, $\text{C}(\text{O})\text{O}(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}$, $\text{C}(\text{O})\text{O}[(\text{C}_2\text{--C}_6) \text{ straight or branched alkenyl or alkynyl}]$, $\text{S}(\text{O})_2(\text{C}_1\text{--C}_6) \text{ straight or branched alkyl}$, or $\text{S}(\text{O})_2\text{R}_7$; or two R_5 moieties, when bound to the same nitrogen atom, are taken together with said nitrogen atom to form a 3 to 7 membered heterocyclic ring, wherein said heterocyclic ring optionally contains 1 to 3 additional heteroatoms independently selected from N, O, S, $\text{S}(\text{O})$ or $\text{S}(\text{O})_2$;

R_6 is selected from $\text{C}(\text{O})\text{CH}_3$, $\text{CH}_2\text{C}(\text{O})\text{OH}$, $\text{CH}_2\text{C}(\text{O})\text{O tBu}$, CH_2CN , or $\text{CH}_2\text{C}=\text{CH}$;

each R_7 is a monocyclic or bicyclic ring system wherein in said ring system:

— i. each ring comprises 3 to 7 ring atoms independently selected from C, N, O or S;
— ii. no more than 4 ring atoms are selected from N, O or S;
— iii. any CH₂ is optionally replaced with C(O);
— iv. any S is optionally replaced with S(O) or S(O)₂;
— each R₈ is independently selected from hydrogen or [C₁-C₄] straight or branched alkyl;
— wherein in any ring system in said compound up to 3 hydrogen atoms bound to the ring atoms are optionally and independently replaced with halo, hydroxy, nitro, cyano, amino, (C₁-C₄) straight or branched alkyl, O (C₁-C₄) straight or branched alkyl, (C₂-C₄) straight or branched alkenyl or alkynyl, or O (C₂-C₄) straight or branched alkenyl or alkynyl; and
— wherein any ring system is optionally benzofused;

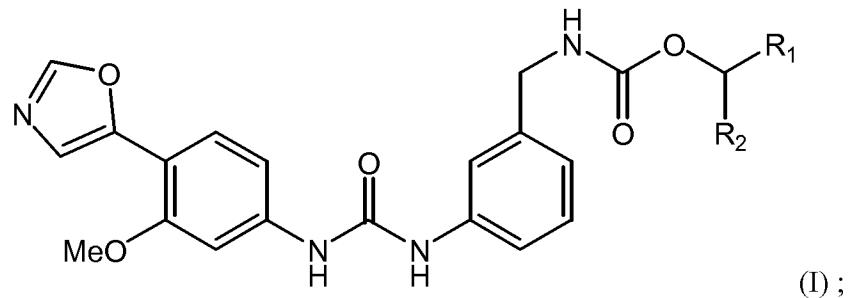
R₉ is selected from hydrogen, (R)-methyl, (S)-methyl, (R)-ethyl, (S)-ethyl, (R)-hydroxymethyl or (S)-hydroxymethyl;

R₁₀ is selected from -C≡N or 5-oxazolyl; and

R₁₁ is selected from halo, -O-(C₁-C₃) straight alkyl, or -O-(C₂-C₃) straight alkenyl or alkynyl; and

(c) a pharmaceutically acceptable carrier.

2. (original) The composition according to claim 1, wherein said compound has the formula (I):



wherein R₁ and R₂ are as defined in claim 1.

3. (canceled)

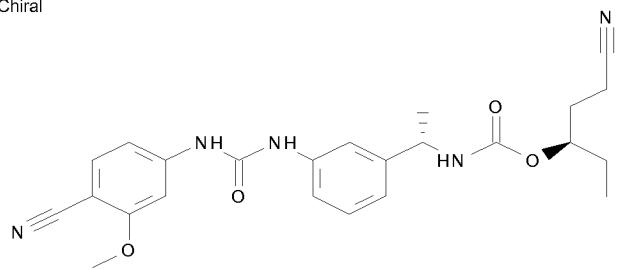
4. (original) The composition according to claim 3 1, wherein R₉ is selected from (S)-methyl, (S)-ethyl, or (S)-hydroxymethyl methyl.
5. (original) The composition according to claim 4, wherein R₉ is (S)-methyl.
6. (currently amended) The composition according to claim 3 1, wherein R₁₁ is selected from O-methyl, O-ethyl or O-isopropyl.

7-9. (canceled)

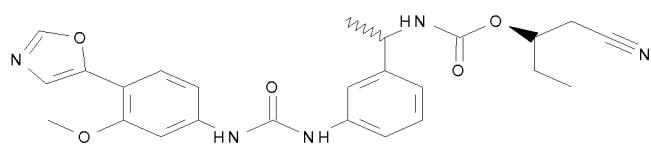
10. (currently amended) The composition according to claim 1, wherein said compound is selected from: ~~any one of compounds 1 to 187 in Table 1~~.

162

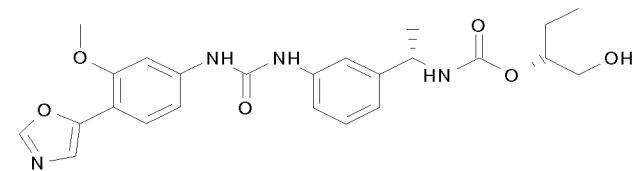
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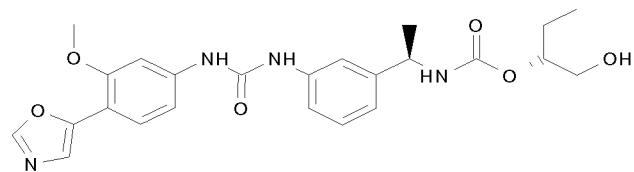
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164

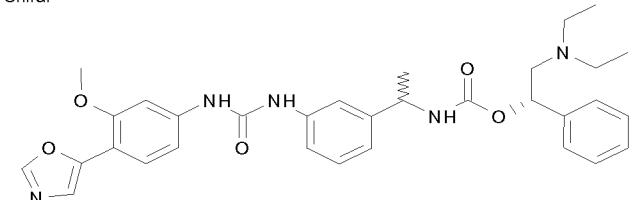


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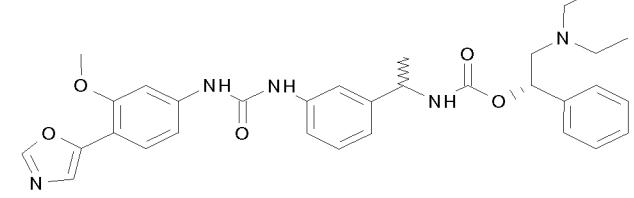
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Chiral



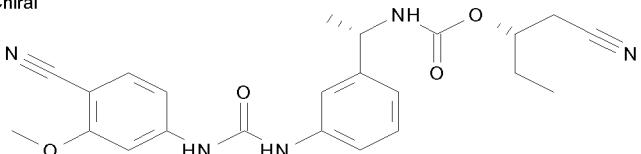
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Chiral



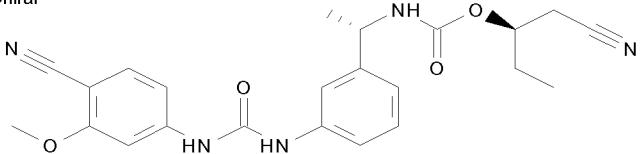
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Chiral



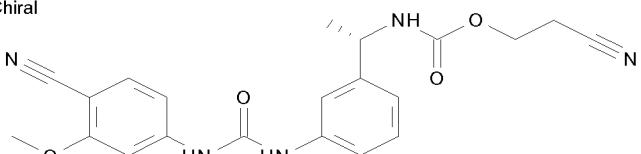
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Chiral



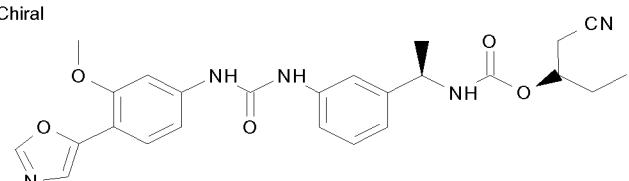
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Chiral



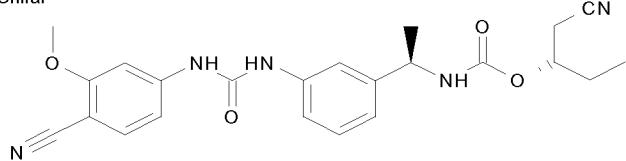
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Chiral



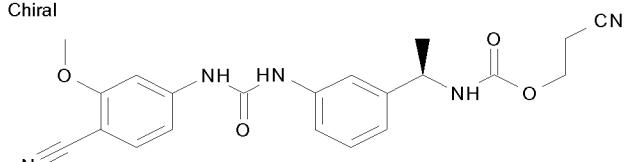
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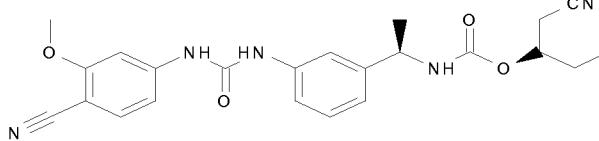
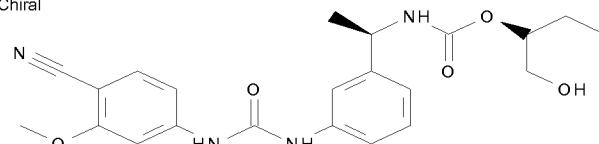
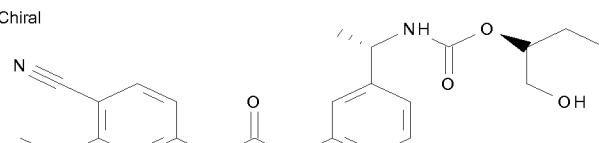
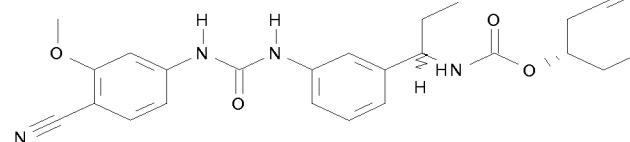
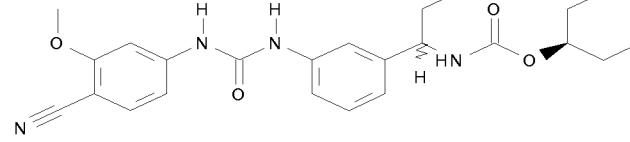
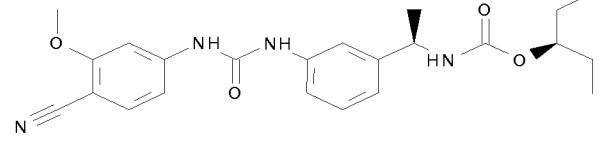
Chiral



173

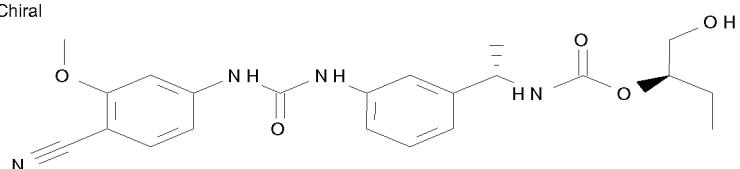
Chiral



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175	<p>Chiral</p> 
176	<p>Chiral</p> 
177	
178	
179	<p>Chiral</p> 

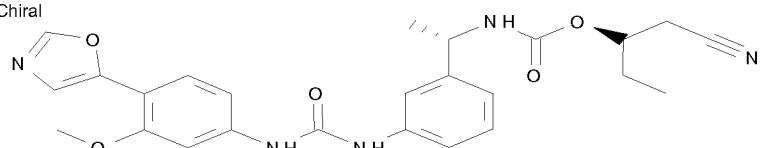
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Chiral



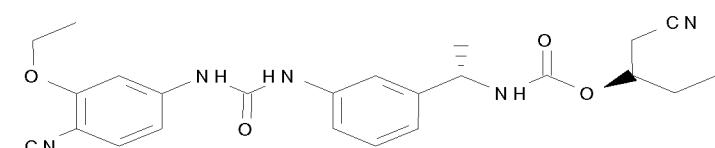
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Chiral

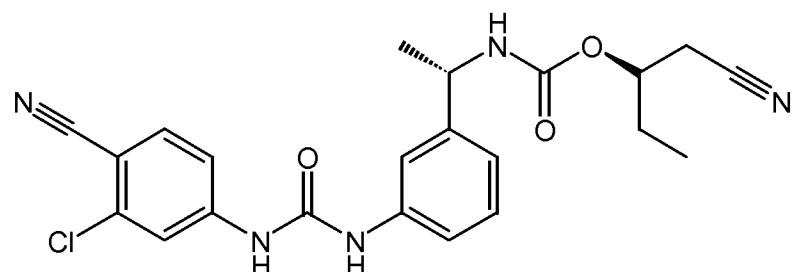


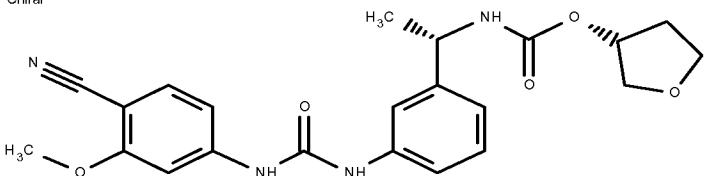
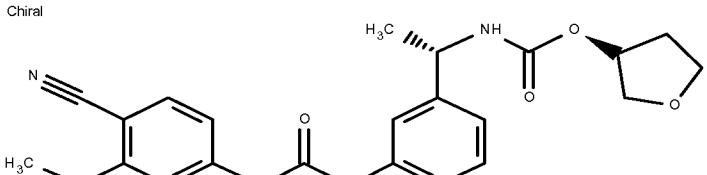
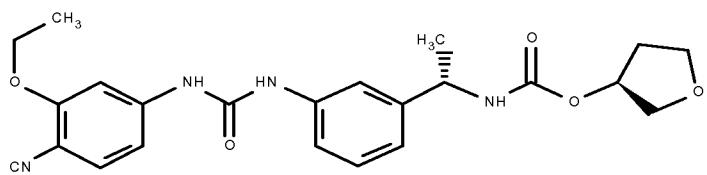
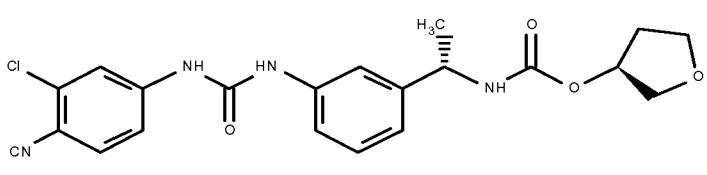
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Chiral

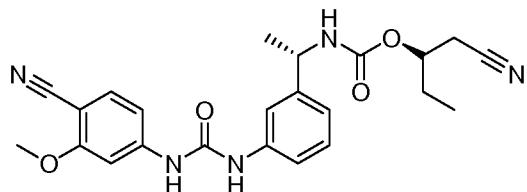


183



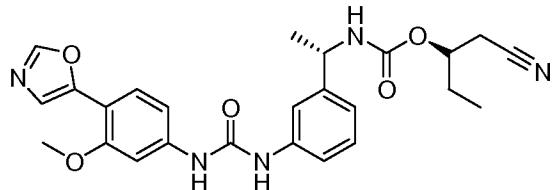
184	<p>Chiral</p> 
185	<p>Chiral</p> 
186	
187	

11. (currently amended) The composition according to claim 10, wherein said compound is selected from:



169

or



181

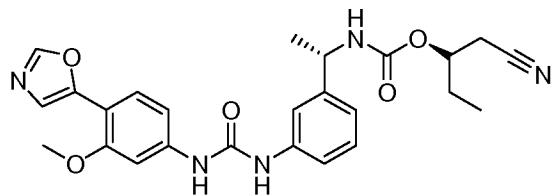
any one of compounds 1, 23, 26, 27, 29, 32, 76, 80, 87, 89, 98, 101, 103, 104, 106, 108, 110, 157, 163, 169, 171, 181, 185, 186 or 187 in Table 1.

12-19. (canceled)

20. (withdrawn-currently amended) A method for inhibiting tumors and cancer in a mammal comprising the step of administrating to said mammal a composition according to any one of claims ~~1-19~~ 1, 2, 4-6, 10 or 11.

21. (withdrawn) The method according to claim 20, wherein said method is useful to treat or prevent lymphoma, leukemia and related disorders, myelodysplastic syndrome, metastatic melanoma, and other forms of cancer.

22. (new) The composition according to claim 10, wherein said compound is:



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23. (new) A method for inhibiting tumors and cancer in a mammal comprising the step of administrating to said mammal a composition according to claim 22.

24. (new) The method according to claim 22, wherein said method is useful to treat or prevent lymphoma, leukemia and related disorders, myelodysplastic syndrome, metastatic melanoma, and other forms of cancer.

25. (new) The method according to claim 23, wherein said other forms of cancer comprise breast cancer, colon cancer, pancreatic cancer, and prostate cancer.